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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/931,292	08/17/2001	Kyoung Hee Lee	8512-0400	3130

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McGuire Woods LLP
Suite 1800
1750 Tysons Boulevard
McLean, VA 22102

EXAMINER

RYMAN, DANIEL J

ART UNIT	PAPER NUMBER
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2665

DATE MAILED: 08/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/931,292

Applicant(s)

LEE ET AL.

Examiner

Daniel J. Ryman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 8-14 is/are rejected.
- 7) ☒ Claim(s) 6 and 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/11/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered. Applicant should include in an IDS the references found on pg. 3, lines 18-23, pg. 5, lines 5-11, pg. 5, line 22-pg. 6, line 4, and pg. 7, lines 15-19.

Specification

2. The disclosure is objected to because of the following informalities: "rougher R1" should be "router R1".

Appropriate correction is required.

Claim Objections

3. Claim 1 is objected to because of the following informalities: in line 22 "the optimized" should be "an optimized". Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 1-5 and 8-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art in view of Mishra et al. (USPN 5,590,126).

6. Regarding claim 1, Applicant admits as prior art a method, for use in wireless Internet, which extends an established resource reservation path between a mobile host (MH) and a correspondent host (CH), the MH moving across cells, each of the cells having a base station (BS) therein and the established resource reservation path being made between the MH and the CH through an initial BS located in an initial cell where the MH is currently located (pg. 1, line 14-pg. 8, line 13, esp. pg. 5, line 22-pg. 7, line 3), the method comprising the steps of: (a) establishing pseudo reservation paths (PRPs) (passive reservation) between the initial BS and its neighboring BSs, one PRP being established between the initial BS and each of the neighboring BSs (pg. 1, line 14-pg. 8, line 13, esp. pg. 5, line 22-pg. 7, line 3); (b) once the MH moves into one of the neighboring cells of the initial cell, activating a PRP established for a neighbor BS, the neighbor BS being located in said one of the neighboring cells, and concatenating the activated PRP with the established resource reservation path to thereby establish a concatenated path between the MH and the CH through the initial BS and the neighbor BS (pg. 1, line 14-pg. 8, line 13, esp. pg. 5, line 22-pg. 7, line 3).

Applicant does not expressly disclose as prior art (c) establishing the optimized resource reservation path. However, Applicant does admit as prior art that RSVP is used to ensure QoS guarantees for Internet traffic (pg. 1, line 14-24). Mishra teaches, in a system for guaranteeing QoS (col. 1, lines 46-51), minimizing the effect of frequent handoffs by extending VC routes (analogous to RSVP path) to a mobile that has moved to a different cell and triggering rebuild (route optimization) only when performance as seen by an application degrades below a certain

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level (col. 1, lines 59-63; col. 3, lines 53-59; and col. 4, lines 29-31). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to establish the optimized resource reservation path in order to ensure that performance as seen by an application does not degrade below a certain level.

7. Regarding claim 2, Applicant in view of Mishra discloses that no traffic is delivered through a PRP until concatenated (Applicant: pg. 1, line 14-pg. 8, line 13, esp. pg. 5, line 22-pg. 7, line 3).

8. Regarding claim 3, Applicant in view of Mishra suggests that when the MH is a sender, the step (a) includes the steps of: (a1) sending a CRP (Concatenation of Reservation Path) inform message from the initial BS to the neighboring BSs, the CRP inform message including Tspec which defines traffic characteristics of a data flow to be generated by the MH (Applicant: pg. 1, line 14-pg. 8, line 13, esp. pg. 5, line 22-pg. 7, line 3 and Mishra: col. 8, lines 23-56); (a2) delivering a RSVP path message from each of the neighboring BSs to the initial BS, the RSVPpath message including the Tspec (Applicant: pg. 1, line 14-pg. 8, line 13, esp. pg. 5, line 22-pg. 7, line 3 and Mishra: col. 8, lines 23-56); and (a3) sending a RSVP resv message from the initial BS to each of the neighboring BSs, thereby establishing the PRPs (Applicant: pg. 1, line 14-pg. 8, line 13, esp. pg. 5, line 22-pg. 7, line 3 and Mishra: col. 8, lines 23-56) where Mishra suggests the type of signaling messages necessary to establish an extended connection (but suggests sending these messages by the mobile and base stations after handoff) and Applicant's admitted prior art suggests sending these signaling messages between the base stations prior to hand-off to establish a passive reservation.

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9. Regarding claim 4, Applicant in view of Mishra suggests that when the MH is a receiver, the step (a) includes the steps of: (a4) delivering a RSVP (resource reservation setup protocol) path message from the initial BS to each of the neighboring BSS in order to establish the PRPs between the initial BS and the neighboring BSs; and (a5) sending a RSVP resv message from each of the neighboring BSs to the initial BS, thereby establishing the PRPs (Applicant: pg. 1, line 14-pg. 8, line 13, esp. pg. 5, line 22-pg. 7, line 3 and Mishra: col. 8, lines 23-56) where Mishra suggests the type of signaling messages necessary to establish an extended connection (but suggests sending these messages by the mobile and base stations after handoff) and Applicant's admitted prior art suggests sending these signaling messages between the base stations prior to hand-off to establish a passive reservation.

10. Regarding claim 5, Applicant in view of Mishra suggests that the step (b) includes the steps of: (b1) sending a CRP activate message from the neighbor BS to the initial BS to activate the PRP established therebetween; (b2) concatenating the activated PRP with the established resource reservation path; and (b3) terminating the established PRPs excepting the activated PRP (Applicant: pg. 1, line 14-pg. 8, line 13, esp. pg. 5, line 22-pg. 7, line 3) where an sending activate message, concatenating, and terminating are implicit steps in establishing an extended route.

11. Regarding claim 8, Applicant in view of Mishra discloses that the BS for each cell directly communicates with a gateway router connected thereto (Applicant: pg. 1, line 14-pg. 8, line 13, esp. pg. 5, line 22-pg. 7, line 3).

12. Regarding claim 9, Applicant in view of Mishra suggests that the gateway router does not need to know whether a RSVP (resource reservation setup protocol) session is a pseudo

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reservation or not (Mishra: col. 7, lines 38-47) where the route will be partially rebuilt when passing through the gateway router such that the route is not a passive route.

13. Regarding claim 10, Applicant in view of Mishra suggests that only one inter-routing domain PRP is established between two neighboring routing domains (Applicant: pg. 1, line 14-pg. 8, line 13, esp. pg. 5, line 22-pg. 7, line 3 and Mishra: col. 7, lines 38-39).

14. Regarding claim 11, Applicant in view of Mishra discloses that the method is built on a RSVP (Applicant: pg. 1, line 14-pg. 8, line 13, esp. pg. 5, line 22-pg. 7, line 3).

15. Regarding claim 12, Applicant in view of Mishra discloses that the method is applied within a routing domain (Applicant: pg. 1, line 14-pg. 8, line 13, esp. pg. 5, line 22-pg. 7, line 3 and Mishra: col. 6, line 66-col. 7, line 25).

16. Regarding claim 13, Applicant in view of Mishra discloses that the method is further applied between two different routing domains (Applicant: pg. 1, line 14-pg. 8, line 13, esp. pg. 5, line 22-pg. 7, line 3 and Mishra: col. 7, lines 38-39).

17. Regarding claim 14, Applicant in view of Mishra discloses that the BS for each cell carries out the method as an agent of the MH (Applicant: pg. 1, line 14-pg. 8, line 13, esp. pg. 5, line 22-pg. 7, line 3).

Allowable Subject Matter


18. Claims 6 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art does not disclose or fairly suggest the particular sequence of messages disclosed in claims 6 and 7.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Ryman whose telephone number is (571)272-3152. The examiner can normally be reached on Mon.-Fri. 7:00-4:30 with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 Daniel J. Ryman
Examiner
Art Unit 2665



HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600